Remarks

Claims 7–16 remain pending in the application. Claims 7–10 are withdrawn. In the Office action dated May 14, 2008, claims 11–16 were rejected under 35 U.S.C. 103(a) as being unpatentable over Bernert et al. (US 6,063,450).

With respect to the examiner's refusal to consider the International Search Report and the IPER, applicant respectfully submits that, while agreeing that they are not technically references, in our experience no examiner has ever refused to consider them. Further these non-references, which are perhaps not statutorily required, are submitted as part of an effort to address the Office with candor, making known on the record the relevance attached to the references cited by the PCT, as shown by the PCT search and the IPER. It is respectfully submitted that as a courtesy, the examiner can and should acknowledge applicant's candor. If the Office has a different policy with respect to these PCT documents, a citation to, or copy of such policy would be greatly appreciated so that counsel may conform to USPTO policies.

Bernert et al. cited by applicant teaches only using an array of nozzles to apply liquid media onto an applicator roll. As the examiner states, "Bernet does not teach the acting variable, selection of nozzles according to the variation in the said variable, and the way of measuring the variables."

MPEP §2142 Rev. 6 states that "The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness." The U.S. Supreme Court in *KSR International Co. v Teleflex Inc.* sets forth the standard for supporting an examiner's finding of obviousness:

> To facilitate review, this analysis should be made explicit. See *In re Kahn*, 441 F.3d 977, 988 (C.A.Fed.2006) ("[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness").

KSR Intern. Co. v. Teleflex Inc. 127 S.Ct. 1727, 1741 (U.S., 2007)

The examiners states "*It is well known in the art that nozzle manufacturers use*

routine optimization to manufacture nozzles with the least amount of deviation in its performance." This statement is contradicted by paragraph 4 of the attached Declaration of Seppo Luomi, and it is this surprising realization that manufactures do not in fact "*manufacture nozzles with the least amount of deviation*" which was a step in the process wherein the invention was realized. This conclusory statement is precisely what blinds the person of ordinary skill to applicant's solution and so is contrary to the examiner's case. If manufacturers do in fact act as the examiner suggests, it would seem unnecessary and useless to measure and select from among those manufactured nozzles whose *acting variable varies from a mean of all the nozzles of the array by less than 5% of the mean.* Applicant's invention is clearly directed at the insight that manufacturers do not *"use routine optimization to manufacture nozzles with the least amount of deviation in its performance*".

The examiner further states "*when a selection of nozzles are found to have a significant impact on the uniformity of the coating due to its variation in flow quantity"* which assumes applicant's invention (*hindsight*) without providing a rational underpinning that it is known that the selection of nozzles has a significant impact *"on the uniformity of the coating*".

Applicant claims the step of "*selecting each ... coating nozzles so that the acting variable varies from a mean ... by less than 5%*". The examiner appears to be addressing this limitation by stating "*routine optimization can be carried out to maximize the uniformity while ... [minimizing] the impact of manufacture error by selecting nozzles with the least variation in its orifice.*" The examiner appears to be applying the principle set forth in MPEP 2144.05 Obviousness of Ranges by stating *"routine optimization can be carried out*". If the examiner is not invoking this principle, the examiner should point out which principle is being employed and where it finds support in the law or regulations. If the principle of the Obviousness of Ranges is being employed, the examiner fails to identify **a result effective variable** to which the rule can be applied and fails to make a showing that the identified variable is in fact known in the prior art to be result effective. The result effective variable cannot be *manufacture error* because applicant does not claim minimizing *manufacture*

error. The result effective variable cannot be *"selecting nozzles"* because this is not a variable but rather a process step.

The examiner concludes "*One of ordinary skill in the art at the time of the invention would know that it would have been obvious to select nozzles with the least deviation in orifice size so an uniform coating can be achieved on a paper web.*" This is simply a bare statement that applicant's invention is obvious without any articulated reasoning or a rational underpinnings.

The attached Rule 132 Declaration by Seppo Luomi (an employee of the assignee of record who supervised the inventor of the present application), provides facts surrounding the development of the invention. Mr. Luomi provides a narrative of the nearly 10 year development required to arrive at a practical solution which could be commercially exploited. What appears in retrospect to be a straightforward application of engineering principles, is shown to have been a surprising solution to a long pursued problem. Invention can consist in asking the right question, and once the question has been properly proposed the answer may be straightforward. Yet it is identifying the problem after years of work which led to the solution which provides evidence that applicant's invention was no mere routine task. Rather, within the complex mechanical and hydrological systems involved in coating a high-speed paper web, after much effort and time the inventor identified a seemingly simple problem, which when solved proved the solution to making spray coating a paper web truly practical.

It is to be noted that the applied art is limited to Bernert et al. which is mere background art discussed by applicant in his specification. The other references– Brooks et al. (US 4,282,533, col. 2, lines 28–52), Miura et al. (US 4,728,392, col. 8, lines 23–37), Lombardo et al. (US 4,318,483, col. 2, lines 31–35) – are not cited as part of examiner's case because they relate to the problems encountered and overcome in the development of ink jet printing. For example the suggestion in Brooks et al. that "optical inspection and selection is normally introduced" (col. 2, lines 43–44). In context Brooks et al. is referring to nozzles "manufactured from watch jewels" (col. 2. line 34), and Brooks et al. explains the

inadequacies of such testing which requires functional testing. Thus in context Brooks et al. does not relate to paper coating and is contrary to applicant's discovery that in fact with respect to the nozzles used in paper coating they are not optical inspection and selected.

Applicant believes that no new matter has been added by this amendment.

Applicant submits that the claims, as amended, are in condition for allowance. Favorable action thereon is respectfully solicited.

Respectfully submitted,

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